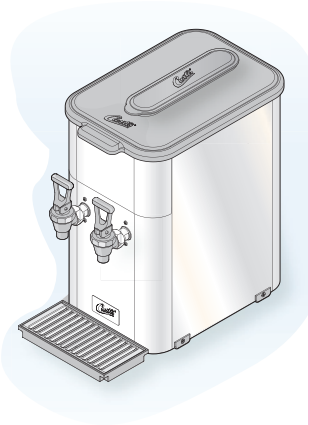
WILBUR CURTIS COMPANY, INC.

Service Manual, Tea Concentrate Container Short



Models Included

- TCC2S
- TCC3S

IMPORTANT

NOTE: Water source pressure must be a minimum of 30 PSI pressure at all times to insure the quality of the of the product.

ISO 9001:2008 REGISTERED

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6913 West Acco Street
Montebello, CA 90640-5403
For the latest information go to www.wilburcurtis.com
Tel: 800-421-6150
Fax: 323-837-2410

Important Safeguards/Symbols

This appliance is designed for commercial use. Any servicing other than cleaning and maintenance should be performed by an authorized Wilbur Curtis service center.

- Do NOT immerse the unit in water or any other liquid
- Never clean with scouring powders, bleach or harsh chemicals.

Symbols:

WARNINGS – To help avoid personal injury

Important Notes/Cautions

Sanitation Requirements

Curtis TCCS Units are Factory Pre-Set and Ready to Go… Right out of the Box.
Generally there will never be a reason to change factory settings. However, should you need to make slight adjustments to meet your tea needs, adjustment instructions are provided later in this manual.

System Requirements:

- Water Source 30 – 90 PSI (Minimum Flow Rate of 1 GPM). If incoming water supply is greater than 90 PSI, additional regulation is required to meet the range.
- Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed and maintained in accordance with federal, state, and local codes.

SETUP STEPS

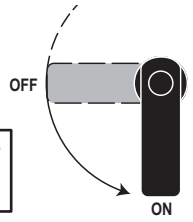
The unit should be level (left to right and front to back), located on a solid counter top. Connect a water line from the water filter to the TCCS server.

IMPORTANT

NOTE: Some type of water filtration device must be used to maintain a trouble-free operation. (In areas with extremely hard water, we suggest that a sedimentary and taste & odor filter be installed.) This will prolong the life of your system and enhance tea quality.

INSTALLATION

1. Remove dispenser from carton.
2. Run a water line to the inlet fitting behind the dispenser. Flush the new waterline to remove foreign particles.
3. Connect a ¼" flared flexible or copper waterline to the male fitting on the back of the dispenser.
4. Locate the water supply valve behind the unit to verify position is turned on.



CAUTION: We recommended that the water supply valve, behind unit, be turned off during non-business hours.

NSF International requires the following water connection:

1. A quick disconnect or additional coiled tubing (at least 2x the depth of the unit) so that the machine can be moved for cleaning underneath.
2. This equipment is to be installed with adequate backflow protection to comply with applicable federal, state and local codes..
3. Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed and maintained in accordance with federal, state, and local codes.

5. Clean out the tea concentrate system before using the TCCS server. Use a Bag-in-Box style cleaning solution to simplify the cleaning procedure. A cleaner like Bev-Clean beverage line cleaner comes in a 3 gallon bag-in-box that connects directly to your bag-in-box system for line cleaning (http://bevclean.com).
   a. Remove the quick disconnect from the tea concentrate bag.
   b. Place the BIB cleaner container next to the TCCS tea dispenser. Pull the spout from the cleaner box through the marked area. Remove the travel cap from spout. Don't worry about cleaner spilling when the cap is removed. The cap has an internal seal.

c. Thread the Scholle bag connector onto the spout on the BIB.

d. Grasping the bag connector (as shown in Load Product, step 4), thread the connector all the way into the bag spout.

e. Once the cleaning solution box is connected, open the dispensing valve on the dispenser and run liquid through the valve until the sanitizer (clear liquid) is detected. The dispensing line is now clean.

f. Remove the connector from the spout.

g. Reattach the tea concentrate BIB.

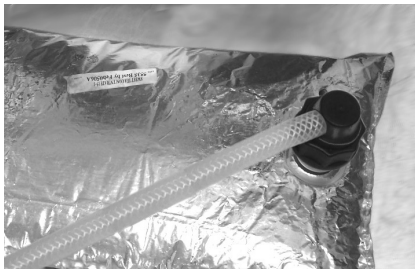
h. Open dispensing valve on dispenser until tea flows freely.

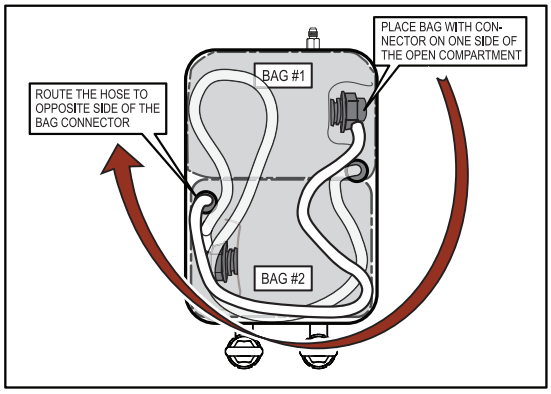
LOAD PRODUCT
Bag-In-Box

1. Place a full tea concentrate bag on the counter next to the TCCS dispenser.
2. Remove the top cover from the TCCS dispenser and pull out the hose with the Scholle bag connector.

3. Pull off the shipping cap that covers the spout on the bag.

4. Place the Scholle over the bag spout and thread the connector all the way into the spout.

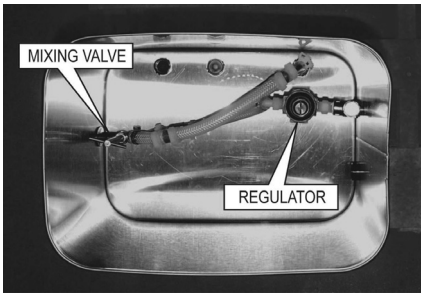



PLACE BAG WITH CONNECTOR ON ONE SIDE OF THE OPEN COMPARTMENT
ROUTE THE HOSE TO OPPOSITE SIDE OF THE BAG CONNECTOR
BAG #1
BAG #2

TOP VIEW OF TCCS SHOWING PREFERRED ORIENTATION OF BIB & HOSE

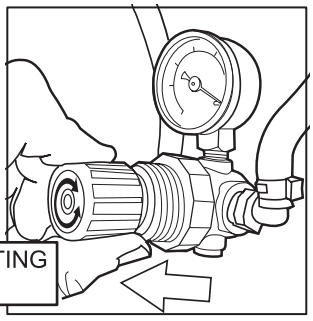
5. Carefully lift the bag and set the bag into the dispenser.
6. Rest tubing on top of the bag. Route tubing to opposite product intake hole on floor of dispenser (see illustration, left).
7. Replace the top cover.
8. Dispense beverage from faucet until darker product starts to appear (approx. 5 seconds).
9. The TCCS server is now ready to dispense tea.

WATER PRESSURE AND MIXING VALVE



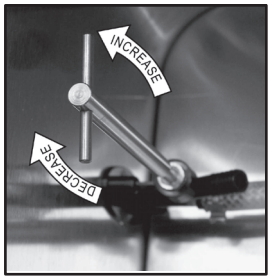
The setting on the pressure regulator should rarely be changed. The main taste or brix adjustments will be accomplished at the mixing valve; 98% of flavor adjustments should be done in this manner.

The purpose of the regulator is to provide uniform water pressure so the venturi-style mixing device can produce a stable and uniform blend of concentrate and water. The regulator will also to protect the hydraulics of the dispensing unit from “line pressure”. It is not the primary adjustment for the brix level. From testing, it has been shown that the PSI on the gage will not directly correlate to a brix level from unit to unit and from location to location. This adjustment does not provide the ideal brix level, you can call Curtis Care for instructions on how to adjust the regulator. As a rule, very little taste variation is accomplished at the pressure regulator.



CAUTION: Do Not Exceed 25 psi (static). Equipment failure or leakage will result.

MIXING VALVE ADJUSTMENT:



For customers who wish to adjust the flavor of the drink, the mixing valve changes the water to concentrate ratio. This valve is very sensitive. Only slight rotation of the mixing rod is needed to change the ratio (1/16th to 1/8th of a turn). The standard setup, as the unit comes from the factory, is approximately 7:1 ratio, which will give you a 5 to 8 percent brix based on the sweet tea concentrate.

1. Start by tilting the TCC dispenser onto its side.
2. Look beneath the unit to locate the adjusting rod.
3. To adjust the valve, turn the adjusting rod counter-clockwise for stronger drink – turn clockwise for weaker drink. Taste the tea with each adjustment to determine the desired consistency.

IMPORTANT

CAUTION – Do not rotate adjusting rod more than 2 full turns from closed position. More turns will cause the adjustment rod to disengage from the mixing valve, with a resulting spill of the tea concentrate product.

TEA TIPS

WARNING DO NOT refrigerate unused tea overnight for later consumption.

1. Never hold finished dispensed tea for more than eight hours at room temperature. Discard any unused tea after eight hours
2. Dispense only enough tea that you reasonably expect to sell within a few hours.
3. To protect tea flavor and to avoid bacterial contamination and growth, clean and sanitize tea brewing, storage and dispensing equipment at least once a day.

CLEANING

STRAINER CLEAN-OUT

1. Turn off the water flow running from the facility to the strainer.
2. Use pliers to grab the housing of the strainer and with an adjustable wrench, remove the cap.
3. Take out the wire strainer and clean out the contents. Use a spiral bristled brush to clean inside the strainer.
4. Rinse the strainer and replace it into the housing.
5. Return the cap to the housing and turn on the water line.

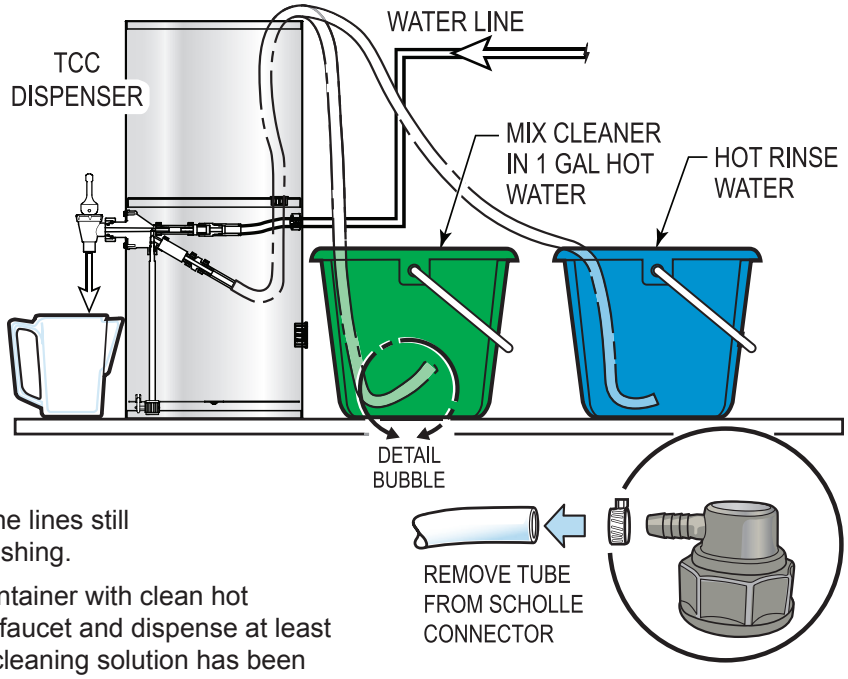
DAILY CLEANING

Regular cleaning of the TCCS dispenser is essential in maintaining the highest quality iced tea your equipment is capable of producing.

1. Wipe any spills, dust or debris from the exterior surfaces, with a damp cloth. Apply a stainless steel polish to prevent scratches.
2. Turn off water supply at valve behind unit.
3. Open the dispensing faucet to relieve pressure in the dispensing lines.
4. Remove the top cover and clean with detergent solution.
5. Clean the faucet assembly.
    a. Unscrew the handle assembly from the faucet and remove.
    b. Clean the faucet cap and silicone seat cup.
    c. Use a spiral brush to clean inside the faucet body.
6. Rinse and dry parts that were removed. Assemble them to the unit.

WEEKLY CLEANING & SANITIZING

Use a concentrated cleaning solution to simplify the cleaning procedure. This procedure requires a one gallon container of a cleaning solution containing hot water and a granulated concentrated cleaner (a cleaner like Coffee Dispenser Cleaner Corporation #12580, Urnex or equivalent) and a one gallon container of clean hot water.



1. Turn on water supply to the dispenser.
2. Remove the quick disconnect from the tea concentrate bag.
3. Pull the Scholle connector from the product delivery tube (see detail drawing) and place the open line into the container containing the cleaning solution.
4. Place a large empty container under the dispenser faucet.
5. Open the front faucet and dispense at least half of the cleaning solution.
6. Allow the dispenser to sit over night with the lines still containing the cleaning solution, before flushing.
7. Flush the system by filling a one gallon container with clean hot water (no cleaning solution) and open the faucet and dispense at least one gallon of the hot water or until all the cleaning solution has been flushed from the system.
8. Remove the product delivery tube from the flushing container and replace the Scholle connector to the end of the tube.
9. Hookup the product delivery tube onto the BIB tea concentrate and dispense several cups to prime the concentrate line or until consistency of the product is correct.

SANITIZING

Use a Bag-in-Box style cleaning solution to simplify the sanitizing procedure. A product like BevClean (http://bevclean.com) beverage line sanitizer comes in a 3 gallon bag-in-box that connects directly to your bag-in-box system for line sanitizing.

1. Remove the Scholle connector from the tea concentrate bag.
2. Place the BIB sanitizer container next to the TCCS tea dispenser. Pull the spout from the sanitizer box through the marked area. Remove the clear travel cap from spout. Don't worry about spilling sanitizer when the cap is removed. The cap has an internal seal.
3. Thread the Scholle bag connector onto the bag spout.
5. Open the dispensing faucet at the front of the dispenser. When you see clear liquid running from the faucet, stop dispensing.

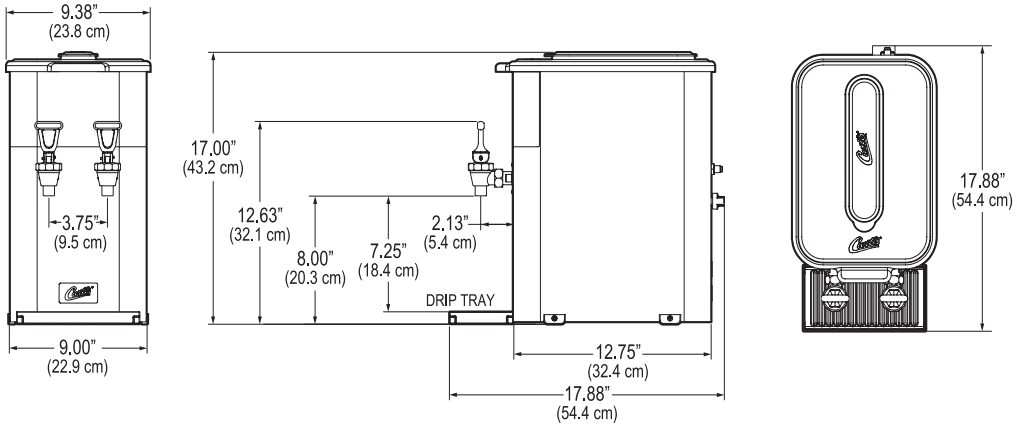
DO NOT FLUSH. Allow the sanitizing solution to sit in the tea lines overnight before proceeding with line flushing steps 6 through 8, below.

6. Remove the Scholle connector from the BIB cleaner and attach it to the tea concentrate BIB product.
7. Open the dispensing faucet and allow it to run until you see tea flowing from the faucet.
8. Repeat the process for all additional faucets on dispenser.

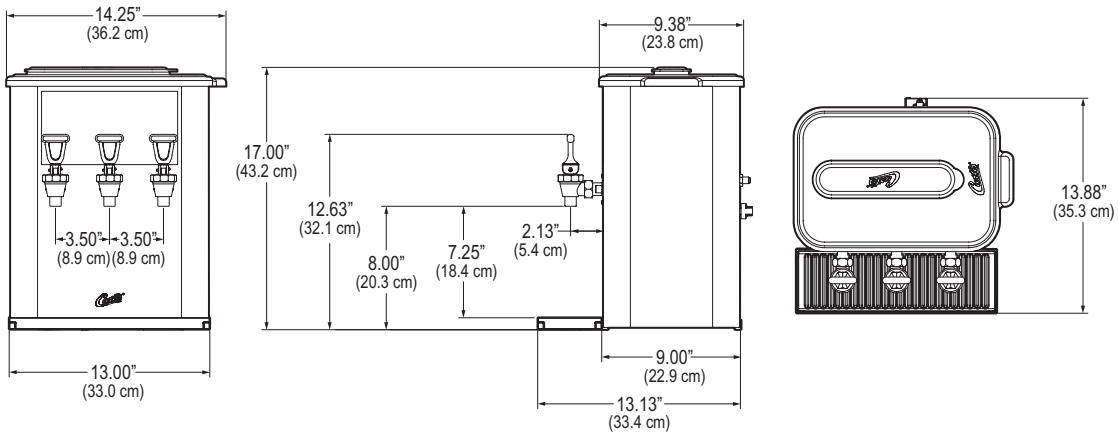
Note: Muliti-outlet manifolds are available for sanitizing up to eight beverage lines with one bag-in-box sanitizer. This allows you to clean all systems at one time.

ROUGH-IN DRAWINGS

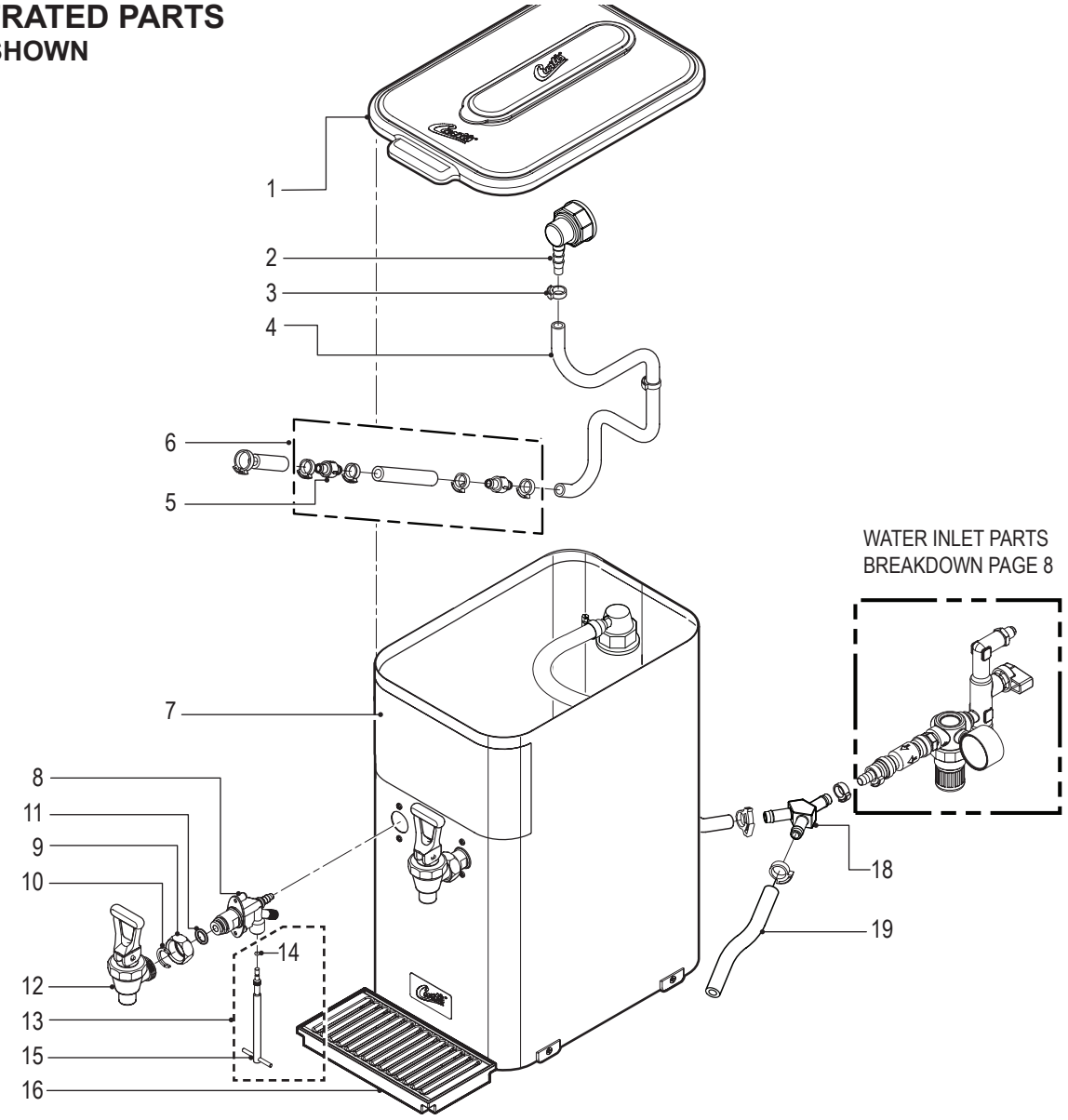
TCC2S



TCC3S



ILLUSTRATED PARTS
TCC2S SHOWN



TCC2S is shown on this page. The TCC3S has three faucet/ mixing valve systems and three Scholle connectors. Parts are common between both units except where noted.

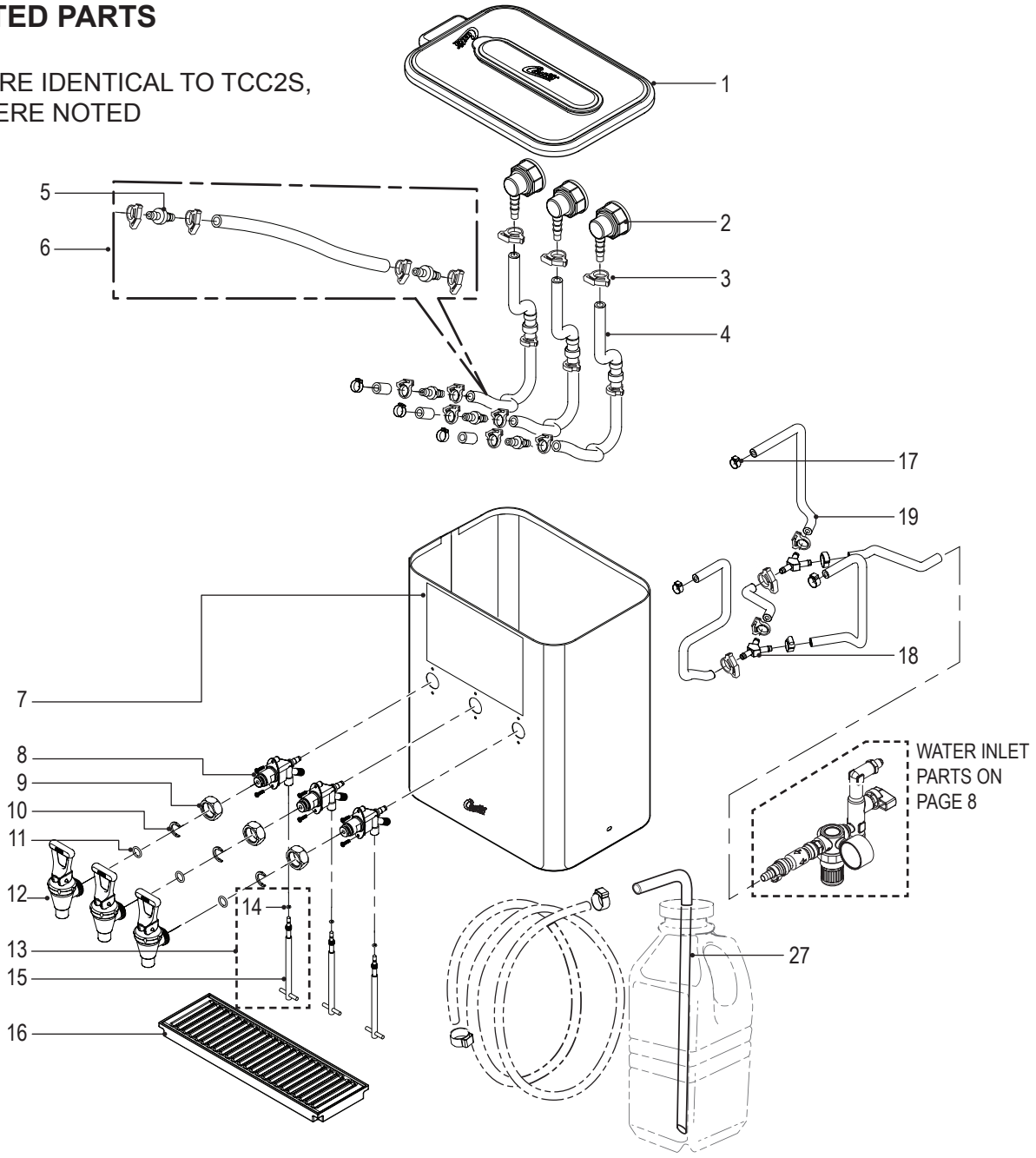
ITEM Nº	PART Nº	DESCRIPTION
1	WC-5683*	LID ASSY, TCO BLACK PLASTIC
1A	WC-5683-101	LID ASSY, BLUE PLASTIC (OPTIONAL)
2	WC-8654*	CONNECTOR, SCHOLLE #1910L BLK FOR .38 ID
3	WC-43002	CLAMP, HOSE SNAP NYLON .525/.605
4	WC-53116*	TUBE, CLEAR BEV 5/8 O.D X 3/8 I.D SWT SYS
5	WC-37293*	KIT, CHECK VALVE (2 VALVES & INSTRUCTIONS)
6	WC-37288*	KIT, CHECK VALVE, CLAMPS & INSTRUCTIONS.
7	WC-38471	LABEL, FRONT TCO ICED TEA GENERIC
8	WC- 894*	MIXING VALVE
9	WC-1903*	NUT, Union SHANK
10	WC-1906*	C' RING .917 X .760 X .090

* RECOMMENDED PARTS TO STOCK

ILLUSTRATED PARTS

TCC3S

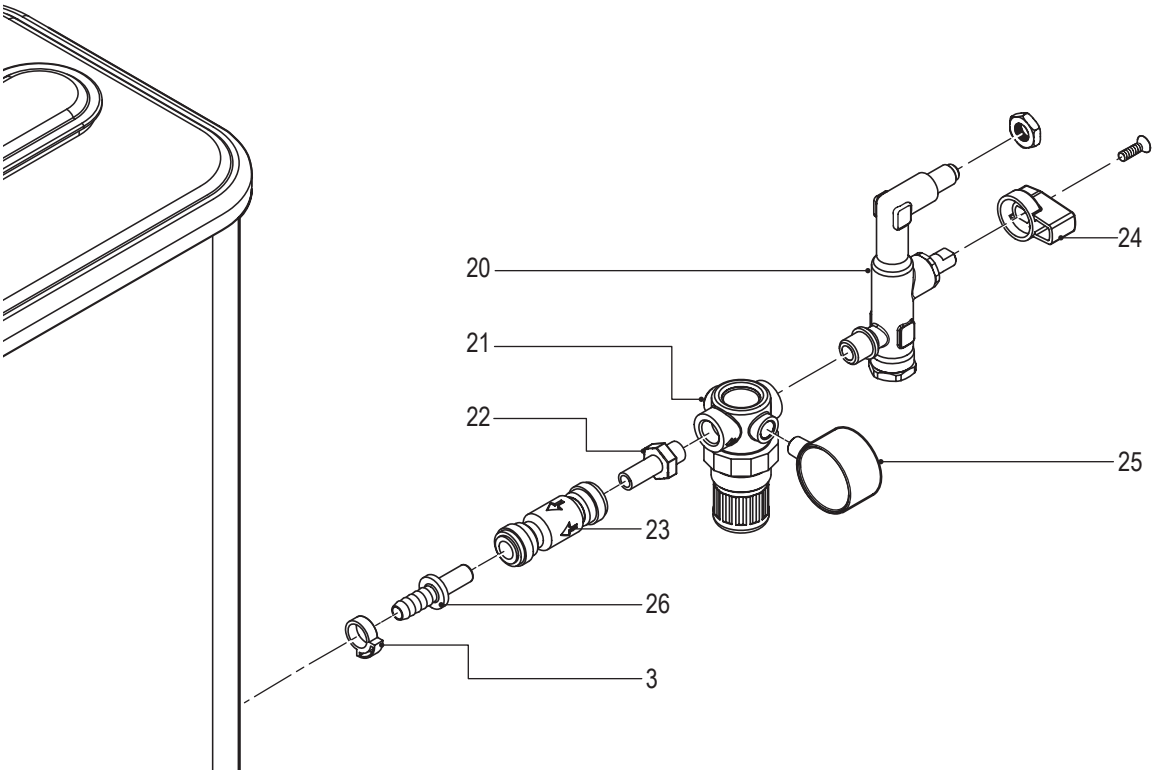
ALL PARTS ARE IDENTICAL TO TCC2S,
EXCEPT WHERE NOTED



ITEM Nº	PART Nº	DESCRIPTION
11	WC-4320*	O' RING, .487 ID X .103 CS
12	WC-1829*	FAUCET, ASSY TCCS BLACK
13	WC-37312	KIT, ADJUSTING ROD & O'RING
14	WC-43084*	O-RING, .070" ID X .070"W BUNA-N
15	WC-29069	ROD, ADJUSTABLE MIXING VALVE
16	DTP-08*	DRIP TRAY, 8"
17	WC-14022	CLAMP, TUBING 15.3-18.5mm SS OETIKER
18	WC-2219*	Y'FITTING BARB ¼x¼x¼ WHT NYLON
19	WC-53113*	TUBING, .25" ID X .50" OD BRAID SILICONE

* RECOMMENDED PARTS TO STOCK

ILLUSTRATED PARTS
PRESSURE REGULATOR & WATER INLET PLUMBING
PARTS ARE COMMON ON ALL TCCS UNITS



ITEM Nº	PART Nº	DESCRIPTION
20	WC-12011	VALVE, ANGLED STRAINER
21	WC- 811-101	REGULATOR, PRESSURE 1/4” NPT 0-50 PSI
22	WC-2451	ADAPTER, 3/8 OD STEM x 1/4 NPTF J GUEST
23	WC-2452*	VALVE, CHECK 3/8 OD TUBE x 3/8 OD TUBE
24	WC-12011-101	CAP, HANDLE PLASTIC
25	WC- 569*	GAUGE, REGULATOR 0-30PSI
26	WC-2445*	STEM, 3/8 BARB x 3/8 STEM
27	WC-53117-101K	KIT, 1 GALLON JAR PRODUCT TUBE ASSEMBLY

* RECOMMENDED PARTS TO STOCK

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Difficulty priming the TCCS tea dispenser.	Adjusting rod on mixing valve is turned in too far.	Open up the valve 1/4 turn counter clockwise.
Tea does not dispense from faucet.	Water line is turned off.	Turn on the water line valve.
Only water flows from the faucet, no tea.	1. Tea concentrate BIB is out of product.	1. Replace the tea concentrate BIB.
	2. The tea BIB line is kinked.	2. Trace the tea line and straighten out kinked hose.
	3. The tea BIB line is clogged.	3. Blow out hose to clean blockage or replace with a new hose.
	4. The check valve in the tea concentrate line may be stuck closed.	4. Loosen the clamps and remove the check valve. Clean or replace it.
	5. The adjustment screw may be turned in or closed.	5. Open the mixing valve to resume product flow.
Faucet is dripping constantly.	1. The faucet seat cup may have solid particles that are keeping the faucet from sealing.	1. Disassemble and clean the seat cup (see cleaning section).
	2. There may be a tear or cut in the seat cup.	2. Replace the seat cup.
	3. Water pressure may be too high.	3. Call CURTIS CARE for instructions on adjusting the water regulator.
Finished tea is weak.	1. The mixing valve is out of adjustment.	1. Open the mixing valve to increase tea concentrate flow.
	2. The product check valve may be stuck.	2. Remove and clean the check valve. Make sure check valve is installed with correct flow direction.

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Product flowing from the faucet is too foamy or bubbly.	1. The clamps at the check valve may not be tight.	1. Reconnect tubing and tighten clamps.
	2. The clamp on the Scholle connector may be loose.	2. Make sure the barbed end of the Scholle fitting is pushed in on the hose and the clamp is tight.
	3. Tea concentrate product may have air in the BIB.	3. Turn the BIB so the fitting faces upward and open the faucet until all the bubbles are released.
	4. The O-ring on the Scholle connector is worn out.	4. Replace the worn O-ring or install a new Scholle connector.

DOs and DON'Ts

INSTALLATION	OPERATION
1. Do connect dispenser to a filtered waterline. 2. Do flush filters before connecting to dispenser. 3. Do sample finished drink before making adjustments. 4. Do make very slight drink adjustments then sample. 5. Don't forget to flush filters before installation. 6. Don't make any pressure regulator adjustments on dispenser (Do NOT attempt to adjust the regulator. If a regulator adjustment is required call CURTIS CARE). 7. Don't forget to get sample approval from customer.	1. Do fully activate faucet handle when dispensing drinks. 2. Do clean & sanitize dispensing assembly monthly. 3. Do keep dispenser primed with concentrate at all times. 4. Do reload immediately when out of concentrate. 5. Do flush and clean lines regularly. 6. Don't forget to clean & sanitize faucet seat cup 7. Do follow all cleaning and sanitizing procedures. Remove and store tea concentrate if dispenser will not be used for an extended period of time (more than two days).

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Product Warranty Information

The Wilbur Curtis Company certifies that its products are free from defects in material and workmanship under normal use. The following limited warranties and conditions apply:

3 Years, Parts and Labor, from Original Date of Purchase on digital control boards**.**
2 Years, Parts, from Original Date of Purchase on all other electrical components, fittings and tubing.
1 Year, Labor, from Original Date of Purchase on all electrical components, fittings and tubing.

Additionally, the Wilbur Curtis Company warrants its Grinding Burrs for Forty (40) months from date of purchase or 40,000 pounds of coffee, whichever comes first. Stainless Steel components are warranted for two (2) years from date of purchase against leaking or pitting and replacement parts are warranted for ninety (90) days from date of purchase or for the remainder of the limited warranty period of the equipment in which the component is installed.
All in-warranty service calls must have prior authorization. For Authorization, call the Technical Support Department at 1-800-995-0417. Effective date of this policy is April 1, 2003.
Additional conditions may apply. Go to www.wilburcurtis.com to view the full product warranty information.

CONDITIONS & EXCEPTIONS

The warranty covers original equipment at time of purchase only. The Wilbur Curtis Company, Inc., assumes no responsibility for substitute replacement parts installed on Curtis equipment that have not been purchased from the
Wilbur Curtis Company, Inc. The Wilbur Curtis Company will not accept any responsibility if the following conditions are not met. The warranty does not cover and is void under the following circumstances:

1) **Improper operation of equipment:** *The equipment must be used for its designed and intended purpose and function.*
2) **Improper installation of equipment:** *This equipment must be installed by a professional technician and must comply with all local electrical, mechanical and plumbing codes.*
3) **Improper voltage:** *Equipment must be installed at the voltage stated on the serial plate supplied with this equipment.*
4) **Improper water supply:** *This includes, but is not limited to, excessive or low water pressure, and inadequate or fluctuating water flow rate.*
5) **Adjustments and cleaning:** *The resetting of safety thermostats and circuit breakers, programming and temperature adjustments are the responsibility of the equipment owner. The owner is responsible for proper cleaning and regular maintenance of this equipment.*
6) **Damaged in transit:** *Equipment damaged in transit is the responsibility of the freight company and a claim should be made with the carrier.*
7) **Abuse or neglect (including failure to periodically clean or remove lime accumulations):** *Manufacturer is not responsible for variation in equipment operation due to excessive lime or local water conditions. The equipment must be maintained according to the manufacturer's recommendations.*
8) **Replacement of items subject to normal use and wear:** *This shall include, but is not limited to, light bulbs, shear disks, "0" rings, gaskets, silicone tube, canister assemblies, whipper chambers and plates, mixing bowls, agitation assemblies and whipper propellers.*
9) **Repairs and/or Replacements** *are subject to our decision that the workmanship or parts were faulty and the defects showed up under normal use. All labor shall be performed during regular working hours. Overtime charges are the responsibility of the owner. Charges incurred by delays, waiting time, or operating restrictions that hinder the service technician's ability to perform service is the responsibility of the owner of the equipment. This includes institutional and correctional facilities. The Wilbur Curtis Company will allow up to 100 miles, round trip, per in-warranty service call.*

RETURN MERCHANDISE AUTHORIZATION: *All claims under this warranty must be submitted to the Wilbur Curtis Company Technical Support Department prior to performing any repair work or return of this equipment to the factory. All returned equipment must be repackaged properly in the original carton. No units will be accepted if they are damaged in transit due to improper packaging.* **NO UNITS OR PARTS WILL BE ACCEPTED WITHOUT A RETURN MERCHANDISE AUTHORIZATION (RMA). RMA NUMBER MUST BE MARKED ON THE CARTON OR SHIPPING LABEL.** All in-warranty service calls must be performed by an authorized service agent. Call the Wilbur Curtis Technical Support Department to find an agent near you.

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FOR THE LATEST SPECIFICATION INFORMATION GO TO WWW.WILBURCURTIS.COM

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